

REMARKS

Claims 1, 2 and 4-10 are present in this application and all claims stand rejected. Firstly, claims 1, 2, 5-7, 9 and 10 stand rejected as unpatentable over Katase et al., U.S. Published Application No. 2002/0021483, in view of Nakamura., U. S. Patent No. 6,628,258. This rejection is traversed. More specifically, this rejection is traversed on the grounds that, in view of the teachings in Nakamura, it would not be obvious to a skilled worker to using the polarity reversal technique of Nakamura in the Katase device.

It appears to the undersigned that, with regard to its combination with Katase, Nakamura stands in a position very similar to the Verschueren reference discussed in the previous Amendment. In the previous Amendment, applicant argued that it is readily apparent from the teaching of Verschueren that the display driving technique there disclosed is intended to be used only with transreflective liquid crystal displays, and hence a person of ordinary skill would not consider the Verschueren polarity-reversal technique applicable to the electrophoretic display units of Katase and the present invention. Nakamura stands in a very similar situation.

As discussed in columns 1 and 2 of Nakamura, the Nakamura "display" is intended for use in the apparatus of Figure 18, which is a somewhat complicated projection display apparatus which uses a *reflective* liquid crystal display panel as a light valve. As discussed in column 1, in this projection display apparatus, a light source 1100 produces a beam of light which is passed to an S-polarized light reflective surface 1201. The blue light component of one beam from this S-polarized light reflective surface 1201 is reflected from a dichroic mirror 1412 on to a reflective liquid crystal display light valve 1300B, while the red and green components of the beam are similarly reflected from liquid crystal display light valves 1300R and 1300G respectively. Finally, the modulated beams from the three reflective displays are returned along their original paths and through a projection optical system 1500 to form the final colored image.

Nakamura teaches that, in the first five embodiments of his invention, the common front electrode of his reflective liquid crystal displays, is maintained at a

constant voltage, while in the sixth embodiment this common front electrode alternates in voltage with every frame (see column 28, lines 37-43 of Nakamura). The alternating voltage on the front electrode is stated to prevent degradation of the liquid crystal cell (see column 28, lines 60-62).

There is no logical way to combine Nakamura and Katase. Nakamura's reflective liquid crystal displays are intended for use in an application which requires preservation of a single plane of polarization of the light being reflected since the apparatus of Figure 18, in which the reflective liquid crystal displays are intended to be used relies upon the S-polarized liquid reflecting surface 1201. The electrophoretic displays used in the present display units do not preserve polarization of the incident light; since electrophoretic media effect reflection by light scattering, the reflected light has random planes of polarization. Hence, it would be apparent to persons skilled in the display art that electrophoretic displays could not be employed in place reflective liquid crystal displays used in Nakamura.

Secondly, Nakamura explicitly states that the reversal of polarity of the front electrodes in his liquid crystal display is to prevent degradation of the liquid crystal medium. There is nothing in either Nakamura or Katase to indicate that electrophoretic displays are subject to any similar type of degradation. Since prevention of such degradation is the only purpose for which Nakamura teaches using polarity reversal of the front electrode, there is no logical reason why a skilled worker would apply such polarity reversal to an electrophoretic display when there is nothing of record to show that electrophoretic displays are subject to a similar degradation. Incidentally, it is respectfully noted that the Office Action does not appear to set out any reason why a skilled person would combine with Katase the sixth embodiment of Nakamura's invention (which does employ front electrode polarity reversal) rather than one of the first five embodiments of Nakamura's invention (which do not employ front electrode polarity reversal).

Zhou et al.
Serial No. 10/574,146
Amendment Accompanying RCE of March 29, 2011
Page 4

The 35 USC 103(a) rejection of claims 4 and 8 as unpatentable over Katase in view of Nakamura as applied to claim 1, and further in view of applicant's admitted prior art, is traversed for the same reasons as the rejection of claim 1 over Katase and Nakamura alone, as discussed above. There is nothing in the admitted prior art which overcomes the deficiencies of the Katase/Nakamura combination already discussed above

For the foregoing reasons, none of the present claims are obvious over Katase and Nakamura, and for the foregoing reasons, the 35 USC 103 rejection is unjustified and should be withdrawn.

Reconsideration and allowance of all claims remaining in this application is respectfully requested.

Since the period prescribed for responding to the Office Action expired December 30, a Petition for a three month extension of this period is filed herewith/

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